

## A NOTE ON THE PERIPSOCIDAE (PSOCOPTERA) OF TUGLO WILDLIFE REFUGE, HUNTER VALLEY, NEW SOUTH WALES

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### Abstract

Eight species of *Peripsocus* Hagen are recorded from Tuglo Wildlife Refuge, Hunter Valley, New South Wales. The previously unknown female of *P. morulops* (Tillyard) is described and *P. reductus* Badonnel and *P. nitens* Thornton and Wong are synonymised with *P. milleri* (Tillyard).

### Introduction

Psocoptera have been collected during a fauna and flora survey of Tuglo Wildlife Refuge, in the Hunter Valley, since the late 1970's. The locality and collecting methods have been briefly described (Smithers 1993). This note deals with the Peripsocidae, all in *Peripsocus* Hagen, of which more than 600 specimens were collected. Number of specimens taken are given for each species; months of capture are indicated by small Roman numerals.

### List of *Peripsocus* species from Tuglo Wildlife Refuge

#### *Peripsocus edwardsi* New

2 specimens; v, ix.

This species was described from macropterous and brachypterous females from Victoria (New 1973). Material from South Australia (Smithers 1984) included some females with longer wings. The two females taken at Tuglo are macropterous.

#### *Peripsocus hamiltonae* Smithers

17 specimens; ii, iii, v, vi, viii, ix, x, xii.

#### *Peripsocus maoricus* (Tillyard)

179 specimens; iv, v, vi, vii, x, xi, xii.

#### *Peripsocus tillyardi* New

48 specimens; i, iii, v, vi, ix, xi, xii.

#### *Peripsocus milleri* (Tillyard)

*Peripsocopsis milleri* Tillyard, 1923. *Trans. N. Z. Inst.* **54**: 195, fig. 20; pl. 18, fig. 14. (cf. Roesler 1944: 154).

*Peripsocus reductus* Badonnel, 1943. *Faune de France* **43**: 98, figs. 238-240. Syn. nov.

*Peripsocus eucalypti* Edwards, 1950. *Pap. Proc. R. Soc. Tasm.* **1949**: 122, figs. 83-88.

*Peripsocus nitens* Thornton and Wong, 1968. *Pacific Ins. Monogr.* **19**: 129, figs. 278-282. Syn. nov.

*Peripsocopsis milleri* was described from New Zealand (Tillyard 1923). Roesler (1944) synonymised the genus with *Peripsocus*. Edwards (1950) described *Peripsocus eucalypti* from Tasmania, which New (1973) synonymised with *P. milleri*. Badonnel (1943) described *Peripsocus reductus* from France. Thornton and Wong (1968) described *Peripsocus nitens* from Hawaii and New Zealand.

82 specimens; ii, iii, iv, v, viii, ix, x, xi, xii.

Perusal of the descriptions and illustrations of *P. reductus* and *P. nitens* indicates that both are the same species as *P. milleri*. The illustration of the male phallosome of *P. milleri* given by me (Smithers 1969, fig. 95) is inaccurate and misleading owing to distortion of the specimen in preparation. *P. milleri* has been recorded by several authors, under one or other of its names, from many parts of the world, namely, New Zealand, Australia, the Kermadecs, Norfolk Island, England, France, Madeira, Azores, Spain, Luxembourg, Yugoslavia, Hawaii and Robinson Crusoe Island.

#### *Peripsocus notialis* Smithers

187 specimens; iii, iv, v, vi, viii, x, xi, xii.

#### *Peripsocus roseus* Smithers

90 specimens; i, ii, iii, iv, v, vi, viii, ix, x, xii.

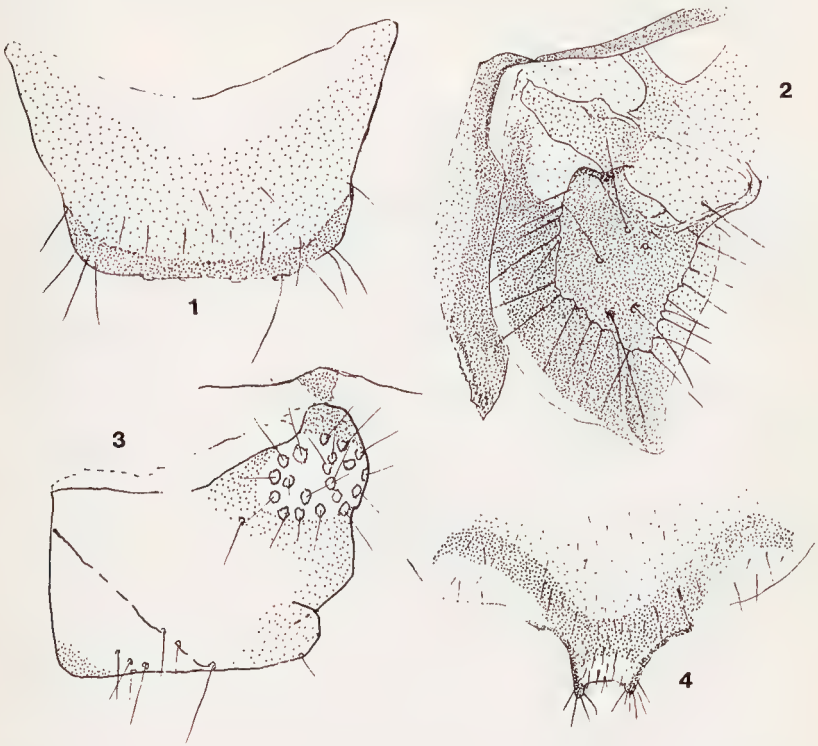
#### *Peripsocus morulops* (Tillyard)

*P. morulops* was described from New Zealand on the basis of males. Males have been recorded from Victoria and Tasmania (New, 1973). The material from Tuglo includes a male (25.ix.1988) and two females (29.viii.1988, 11.ix.1988).

#### Description of female

Colouration (in alcohol). Similar to male (cf. Smithers 1969, redescription of male). Head pale brown with darker marks. Median epicranial suture dark brown. Epicranial plates with irregular, confluent spots across back of head, adjacent to compound eyes and on either side of epicranial suture. Postclypeus with anteriorly converging stripes almost meeting in midline. A spot between antenna base and eye. Labrum brown. Antennae, legs and maxillary palps pale brown. Eyes black. Ocellar tubercle brown. Fore wing membrane very faintly tinged with brown, without distinctive pattern. Hind wings similar but even paler, barely tinted.

Morphology. Length of body: 2.6 mm. Median epicranial suture very distinct. Length of flagellar segments: f1: .405 mm; f2: .23 mm. Eyes much smaller than in male, not reaching level of vertex when viewed from side nor reaching back of head when viewed from above. IO/D:2.3; PO:85. Measurements of hind leg: F: .567 mm; T: 1.08 mm; t1: .27 mm; t2: .162 mm; rt: 1.6:1; ct: 11.0. Fore wing length: 3.5 mm; width: 1.2 mm. General form of wing as in male (Smithers 1969, fig. 102) but lacking unusual



**Figs. 1-4.** *Peripsocus morulops*. Female. 1. Epiproct. 2. Gonapophyses. 3. Paraproct. 4. Subgenital plate.

thickening of costa between wing base and pterostigma which is characteristic of male. Costal margin slightly but perceptibly curved forward in equivalent position. Wing margin at anal angle a little thickened but normal between angle and wing base. Hind wing length: 2.7 mm; width: 0.9 mm. Ninth tergite with middle part of hind margin slightly curved backwards, curved section bearing a row of tiny papillae similar to but smaller than papillae in the equivalent position in male. Epiproct (fig. 1). Paraproct (fig. 3) with small field of trichobothria, setae with small, widely separated basal "rosettes". Subgenital plate (fig. 4). Ventral valve of gonapophyses (fig. 2) with somewhat sinuous, dorsal, sclerotized strip, broader than usual in the genus. Dorsal valve broad, tapering posteriorly. External valve short, almost rectangular, with long, fine, setae.

### Acknowledgments

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